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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,154	12/13/2003	Steven E. Hobbs	133-US	3667
32763	7590	04/05/2005	EXAMINER	
NANOSTREAM, INC. 580 SIERRA MADRE VILLA AVE. PASADENA, CA 91107-2928			FERNANDEZ, KALIMAH	
			ART UNIT	PAPER NUMBER
			2881	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/736,154	<b>Applicant(s)</b> HOBBS ET AL.	
	<b>Examiner</b> Kalimah Fernandez	<b>Art Unit</b> 2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-45 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8, 15 and 20-25 is/are rejected.
- 7) ☒ Claim(s) 3-7, 9-14, 16-19, 26 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                                           |                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                               | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                      | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4-1-04 &amp; 1-09-04</u> . | 6) <input type="checkbox"/> Other: ____                                                |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 8 recites the limitation "modules." There is insufficient antecedent basis for this limitation in the claim. This failure renders the claim indefinite because it is unclear the metes and bounds of the patent protection the applicant intends.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

and

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 15, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat No 6,410,915 issued to Bateman et al.
3. Bateman et al disclose a plurality of samples in parallel (col.3, lines 6-16).
4. Bateman et al disclose a plurality of ionization sources (see for example col.3, lines 24-29, lines 44-50).
5. Bateman et al disclose a mass spectrometer having a plurality of sample inlets (col.4, lines 4-9, lines 36-45).
6. Bateman et al disclose each separation process region is in fluid communication with the mass spectrometer through a different ionization source of the plurality of ionization sources and through a different inlet of the plurality of inlets (see for example col. 4, lines 36-45).
7. As per claim 15, Bateman et al disclose each inlet of the plurality of inlets is disposed at least about one centimeter apart from every other inlet of the plurality of inlets (col.10, lines 28-32). Bateman et al disclose the inlets closely spaced. This disclosure touches the claimed range " at least about one centimeter" with sufficient specificity, because the hollow member (36) must be small to accommodate the plurality of sources (see fig.2).

8. As per claim 22, Bateman et al disclose a plurality of liquid chromatography columns (see for example col.3, lines 28-32).
9. Claims 1-2,20-22, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pub 2002/0068366 issued to LaDine et al.
10. LaDine et al disclose a plurality of samples in parallel (see for example pg. 1, para.7).
11. LaDine et al disclose a plurality of ionization sources (i.e. electrospray ionization) (see pg. 4, para. 39).
12. LaDine et al disclose a mass spectrometer having a plurality of sample inlets (see for example pg. 5, para. 53).
13. LaDine et al disclose each separation process region is in fluid communication with the mass spectrometer through a different ionization source of the plurality of ionization sources and through a different inlet of the plurality of inlets (see pg.5, para.57).
14. As per claims 2 and 25, LaDine et al disclose the mass spectrometer includes a plurality of mass analyzers and each ionization source of the plurality of ionization sources supplies ions to a different mass analyzer of the plurality of mass analyzers through a different inlet of the plurality of inlets (see pg. 3, para. 33; pg. 5, para. 57). LaDine et al disclose also the

number of separation process regions of the plurality of separation process regions equals the number of mass analyzers of the plurality of mass analyzers (pg. 5, para. 57).

15. As per claim 22, LaDine et al disclose each separation process region of the plurality of separation process regions is liquid-chromatography columns (see for example pg. 2, para: 11).

### ***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bateman et al ('915) and US Pat No 6,580,070 issued to Cornish et al.

18. Bateman et al disclose the claimed invention except for a plurality of mass analyzers.

19. However, Cornish et al teach the desirability of a plurality of mass analyzers.

20. It would have been obvious to an ordinary artisan at the time of the invention to combine Bateman et al and Cornish et al because Cornish et al teach enhance throughput (see for example col.2, line 13-20).

21. Claims 1-2 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 6,264,892 issued to Kaltenbach et al and US Pat No 6,580,070 issued to Cornish et al.

22. Kaltenbach et al teach a unitary microfluidic device having a plurality of fluid phase separation process regions and a plurality of ionization sources (see for example col.3, lines 5-23).

23. Kaltenbach et al does not teach a mass spectrometer having a plurality of sample inlets.

24. However, Cornish et al teach a mass spectrometer array having a plurality of sample inlets.

25. It would have been obvious to an ordinary artisan at the time of the invention to combine Kaltenbach et al and Cornish et al because Cornish et al teach enhance throughput (see for example col.2, line 13-20).

26. As per claim 23, Cornish et al teach the plurality of mass analyzers are time-of-flight (see for example col.8, lines 33-56).

27. As per claim 24, Kaltenbach et al teach a plurality of flow-through detection regions (see for example col.7, lines 12-27).

***Allowable Subject Matter***

28. Claims 28-45 are allowed. The following is an examiner's statement of reasons for allowance: the prior art of record fails to teach or obvious suggestion the claimed invention.

29. Specifically, no teaching or obvious suggestion was found of the limitation "a chassis disposed at least partially within the vacuum enclosure; at least one vacuum pump for evacuating the vacuum enclosure; and a plurality of modules adapted to mate with the chassis within the vacuum enclosure, the plurality of modules including a plurality of mass analyzers disposed downstream of the plurality of sample inlets and including any of a plurality of focusing elements disposed between the plurality of sample inlets and the plurality of mass analyzers; and a plurality of transducers disposed downstream of the plurality of mass analyzers" as in claim 28.

30. Claims 29-45 are allowed by virtue of their dependency.



31. Likewise, claims 4-7,9-14,16-19, and 26-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. These claims recite the limitation “ the mass spectrometer includes a plurality of mass analyzers and a plurality of transducers ... each transducer of the plurality of transducers is associated with a different ionization source of the plurality of ionization sources and is associated with a different inlet of the plurality of inlets,” which the prior art fails to teach or fairly suggest.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

### ***Conclusion***

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Pat No 6,318,157 issued to Corso et al; US Pat No 6,066,848 issued to Kassel et al; US Pat No 6,586,727 issued to Bateman et al; US Pat No 6,175,112 issued to Karger et al; US


Pat No 6,827,095 issued to O'Connor et al; US Pat No 5,872,010 issued to Karger et al; US Pat No 6,841,774 issued to Weiss; and US Pat 5,401,963 issued to Sittler were considered in formulating the above grounds of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalimah Fernandez whose telephone number is 571-272-2470. The examiner can normally be reached on Mon-Tues 6:30-3:30; Wed-Thurs 8-5 and Fri.9am-6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KF



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